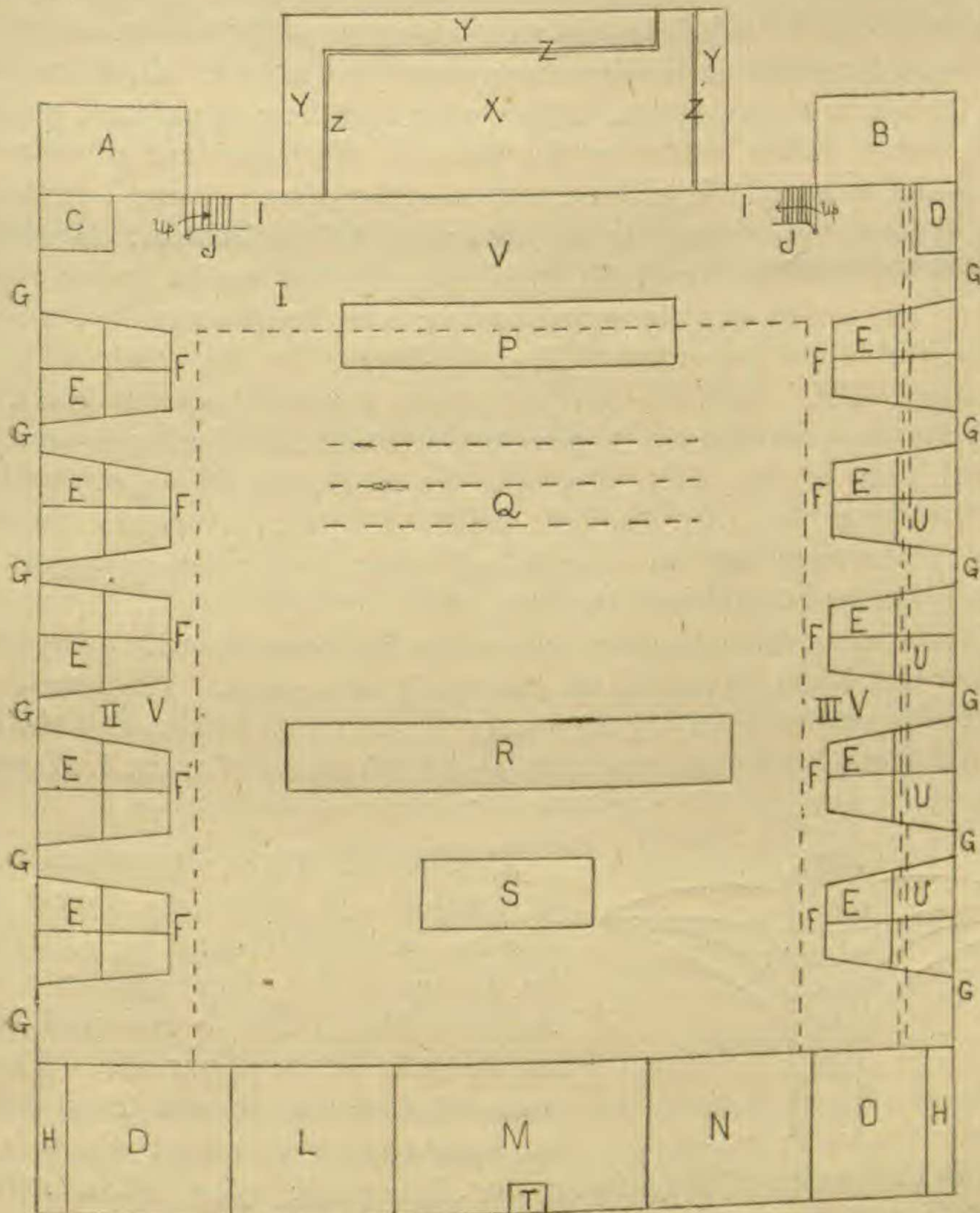


difference in time consumed by the two processes is not at all commensurate with the difference in value of the results.—JAS. E. HUMPHREY, *Bloomington, Ind.*

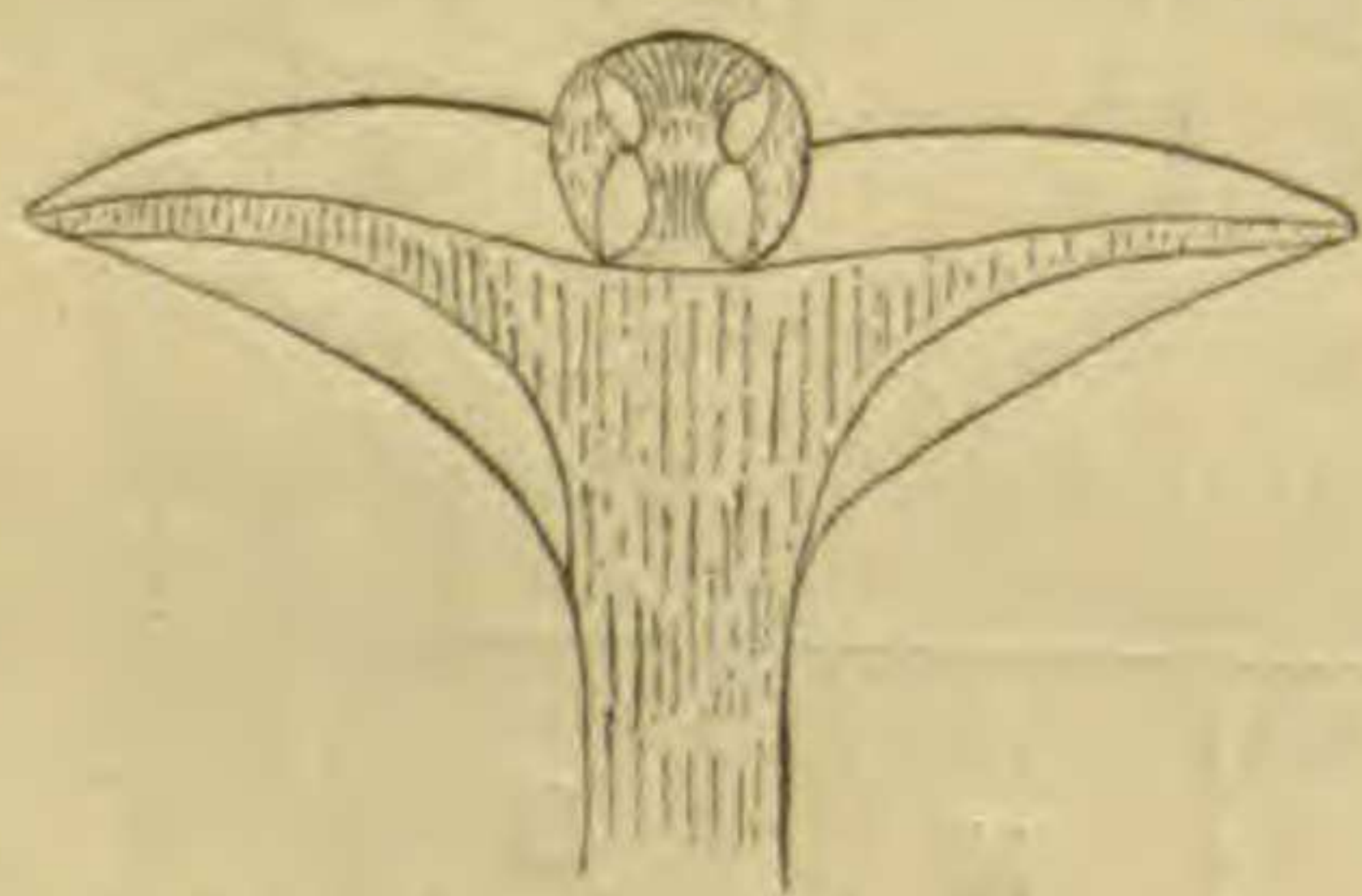
Plan for botanical laboratory.—The *BOTANICAL GAZETTE* for July, 1885, published an outline course in plant chemistry. A laboratory desk arranged for such work was figured in the same journal for the following November. It is believed that the laboratory sketched below will be found convenient for the study of plant anatomy as well as of plant chemistry.



A, teacher's private laboratory. *B*, small laboratory for special work. *C*, large spectroscope. *D*, balances; shelves above hold measuring dishes. *E*, students' working desks (*BOT. GAZ.*, July, 1885); above each set are spaces for charts and pictures. At *F*, end of each set of four desks, is a writing-desk and book-shelf. *G*, windows; brackets are to be

placed alongside for holding pots of the plants that are being studied. *H*, entrances to laboratory. *I*, doors to botanical garden. *J*, stairs to gallery above. *L*, drying oven; the water is also distilled here. *M*, instruments for taking melting and solidifying points. *N*, combustion furnace. *O*, closet for supplying the chemicals on the students' desks; one side has the following for organic work: petroleum spirit, ether, absolute alcohol, chloroform, carbon bisulphide, benzole, Meyer's solution, gold chloride, Fehling's solution, gelatine, milk of lime, carmine, mounting material; the other side holds the usual re-agents for qualitative and quantitative analysis. *O*, hood for generating H_2S and chlorine. *P*, lecture table; behind is a blackboard which may be pushed down and leave white walls for receiving pictures from stereopticon at *T*. *Q*, chairs with desks for taking lecture notes. *R*, table for distilling apparatus; pulleys to be attached to the condenser for purpose of convenient adjustment. *S*, mills and mortars. *V*, gallery, indicated by dotted lines; I is the library, II for storing chemicals and apparatus, III herbarium; one side is for dried, the other for alcoholic, specimens; shelves can be drawn out to support specimens during examination; the cupboards below hold presses, herbarium paper, etc. *X*, green-house for the study of plant physiology. *YYY*, shelf for growing plants, a certain portion being set aside for each student's use. A pneumatic trough, *ZZZ*, runs around the exposed edge of this shelf. Gases to be employed in experimenting upon the living plants are brought from the main laboratory through tubes. The trough may be covered and made to furnish a support for plants while applying electricity, heat, etc.

In arranging this laboratory, the object has been to bring everything together that could be needed in the study of a plant. Too much can not be said against teaching any natural science so as to make the student feel that science cuts a natural object into parts.—LILLIE J. MARTIN, *Indianapolis, Ind.*



Proliferous fungi.—My attention has been called this season to several proliferous fungi belonging to Agaricini. On the top of the pileus appears a secondary pileus, which is reversed, bearing the gills on the upper side. A specimen of *Lactarius cinereus* Peck before me has a secondary pileus which is located in the center of the primary one. It is nearly spherical and sessile. The gills are borne on the inside, being exposed only by a small opening at the top as shown in the cut.—F. L. HARVEY, *Orono, Me.*